## APPENDIX 1
## CLEAN COPY OF PENDING CLAIMS

1. A method to decrease localized inflammatory responses arising from an ischemia/reperfusion injury in a tissue of a patient comprising intravascularly administering to said patient heparinase enzyme in an effective amount sufficient to decrease neutrophil transmigration through activated endothelium and basement membrane of said vasculature which decreases said localized inflammatory response arising from an ischemia/reperfusion injury.

2. The method of claim 1, wherein said administration of said heparinase enzyme removes and digests heparin and heparan sulfate from endothelial cell surfaces and extracellular matrices of said tissue.

3. The method of claim 1, wherein said administration of said heparinase enzyme decreases the accumulation of leukocytes in tissue adjacent to endothelial cell surfaces and extracellular matrices.

4. The method of claim 1, wherein said administration of said heparinase enzyme inhibits leukocyte extravasation by releasing immobilized chemokines from the endothelium.

5. The method of claim 1, wherein said administration of said heparinase enzyme inhibits leukocyte rolling on endothelium.

6. The method of claim 1, wherein said heparinase enzyme is expressed from a recombinant nucleotide sequence, in *Escherichia coli* or *Flavobacterium heparinum.*

7. The method of claim 1, wherein said heparinase enzyme is expressed from a recombinant nucleotide sequence in an organism in which it does not naturally occur.

18. The method of claim 1, wherein said heparinase enzyme is heparinase III.

19. The method of claim 1, wherein said ischemia/reperfusion injury is selected from the group consisting of myocardial infarction, stroke, organ transplant, traumatic shock, cardiovascular surgery.

## APPENDIX 2
## MARKED-UP COPY OF AMENDED CLAIMS

6. (Amended) The method of claim 1, wherein said heparinase enzyme is expressed from a recombinant nucleotide sequence, in *Escherichia coli* or *Flavobacterium heparinum*.